

2 BEDROOM

REVIEWED FOR  
DESIGN CRITERIA  
ONLY

◁ Indicates left end of truss

Drawing is not to scale u.n.o.

Dashed walls indicate a non-bearing wall



Client: Walk In - Mayer

Job Name: Home of my own

Job #: 105781

Location: , Prescott AZ

By signing below, I agree that I have reviewed this layout and the attached truss drawings and found them to be in conformance to my needs for this project, even if it they have deviated from the plans.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Disclaimer: This Truss Placement Diagram was not created by an engineer, but rather by the Ballard Truss Staff and is purely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the Truss Design Drawings which may be sealed by the Truss Designer.



MiTek USA, Inc.

MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661  
Telephone 916-755-3571

Re: 105781

Yavapai County 2 Bedroom

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Ballard-Mesa, Snow.

Pages or sheets covered by this seal: R64674233 thru R64674255

My license renewal date for the state of Arizona is March 31, 2022.

Arizona COA: 11906-0

Lumber design values are in accordance with ANSI/TPI 1 section 6.3  
These truss designs rely on lumber values established by others.



December 9, 2020

Dyer, Cecil

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

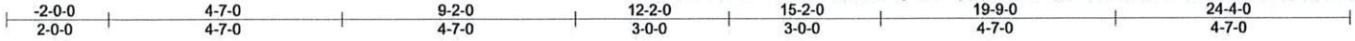
REVIEWED FOR  
DESIGN CRITERIA  
ONLY

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674233
105781	A1	Common	4	1		

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:32 2020 Page 1

ID:U?NWOCy\_P\_W3D7wwZ711e8yB4r?-YJ0HsGrmMNqkbscou91YNyS9PfuLsmGdR6BQ84yB4X9



Scale = 1:43.3

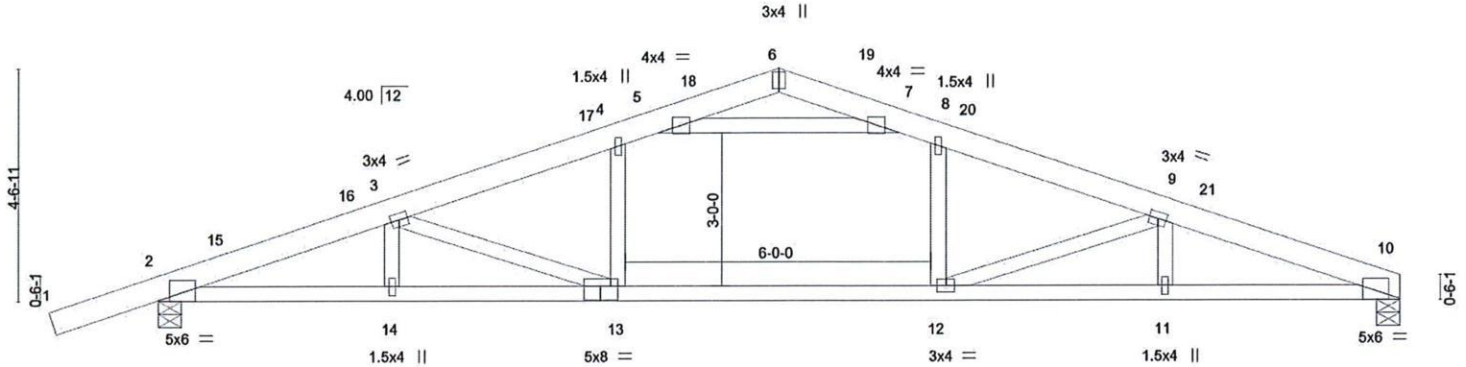


Plate Offsets (X,Y)--	[2-0-2-10,Edge], [10-0-2-10,Edge], [13-0-3-12,0-3-4]
-----------------------	--

<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSL</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.37 11-12 >782 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.92	Vert(CT) -0.47 11-12 >605 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.11 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 107 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-4-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 10=0-5-8, 2=0-5-8  
Max Horz 2=99(LC 14)  
Max Uplift 10=-108(LC 11), 2=-219(LC 10)  
Max Grav 10=1570(LC 22), 2=1816(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3735/312, 3-4=-2893/242, 4-5=-2670/253, 5-6=-442/19, 6-7=-436/18,  
7-8=-2665/259, 8-9=-2900/257, 9-10=-3866/382  
BOT CHORD 2-14=-240/3418, 13-14=-240/3418, 12-13=-115/2682, 11-12=-306/3574, 10-11=-306/3574  
WEBS 8-12=-4/426, 9-12=-1125/266, 4-13=0/385, 3-13=-982/225, 5-7=-2338/289

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 12-2-0, Exterior(2R) 12-2-0 to 15-8-0, Interior(1) 15-8-0 to 24-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; P=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) 150.0lb AC unit load placed on the top chord, 12-2-0 from left end, supported at two points, 3-0-0 apart.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 10=108, 2=219.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

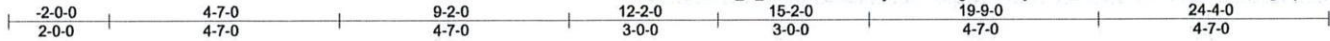
**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss A2	Truss Type Common	Qty 2	Ply 1	Yavapai County 2 Bedroom R64674234
Job Reference (optional)					

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:33 2020 Page 1

ID:U7NWOCY\_P\_W3D7wwZ711e8yB4r7-0wag3csO7hybC0B\_StZnw97K73DabDemfmxzgWyB4X8



Scale = 1:44.0

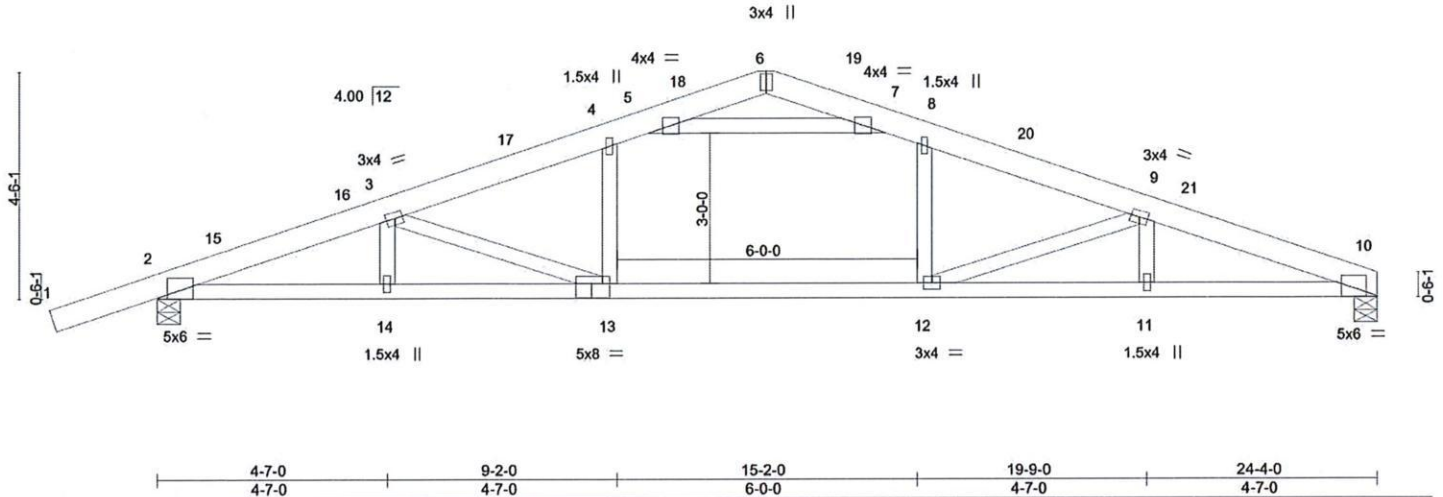


Plate Offsets (X,Y)-- [2:0-2-10,Edge], [10:0-2-10,Edge], [13:0-3-12,0-3-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL 1.15		TC 0.49	Vert(LL)	-0.37 11-12	>782	240	MT20	185/144
TCDL 10.0	Lumber DOL 1.15		BC 0.73	Vert(CT)	-0.47 11-12	>606	180		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.91	Horz(CT)	0.11 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-SH						
								Weight: 107 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-5-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 10=0-5-8, 2=0-5-8  
Max Horz 2=99(LC 18)  
Max Uplift 10=-108(LC 11), 2=-219(LC 10)  
Max Grav 10=1570(LC 22), 2=1816(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3736/343, 3-4=-2892/261, 4-5=-2670/272, 5-6=-457/17, 6-7=-451/16,  
7-8=-2664/280, 8-9=-2900/277, 9-10=-3866/394  
BOT CHORD 2-14=-274/3418, 13-14=-274/3418, 12-13=-135/2681, 11-12=-318/3574, 10-11=-318/3574  
WEBS 8-12=-4/426, 9-12=-1126/266, 4-13=0/385, 3-13=-983/225, 5-7=-2317/311

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 12-2-0, Exterior(2R) 12-2-0 to 17-1-6, Interior(1) 17-1-6 to 24-1-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) 150.0lb AC unit load placed on the top chord, 12-2-0 from left end, supported at two points, 3-0-0 apart.
- 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=108, 2=219.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674236
105781	A3A	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:35 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r7-zlhQUHuefJCJSKLNZHbF7a4jjswH3Bx374Q4IPyB4X6



Scale = 1:43.9

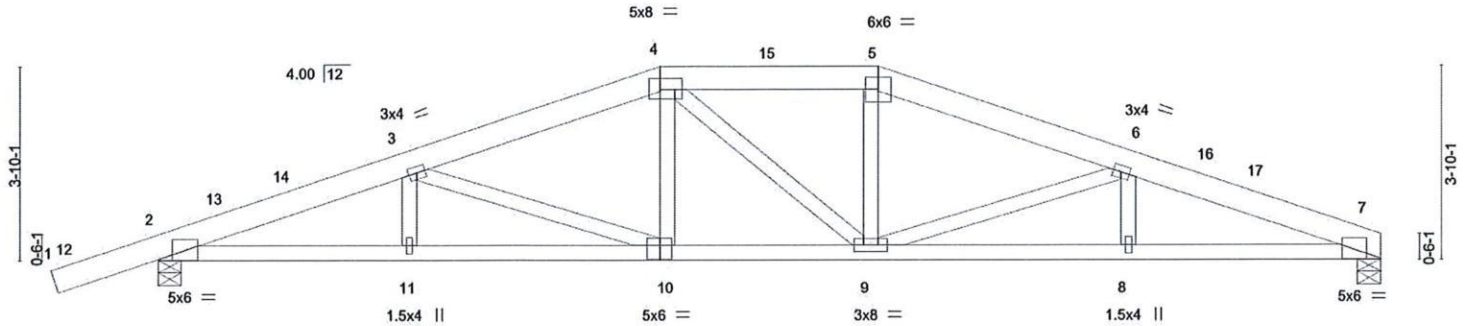


Plate Offsets (X,Y)-- [2:0-3-6,Edge], [4:0-5-4,0-2-12], [7:0-3-2,Edge], [10:0-2-12,0-3-4]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL 2-0-0	TC 0.29	Vert(LL)	-0.21 10-11	>999	240	MT20	185/144
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT)	-0.31 10-11	>926	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.67	Horz(CT)	0.13 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-SH					Weight: 110 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-7-4 oc bracing.

**REACTIONS.** (size) 7=0-5-8, 2=0-5-8  
Max Horz 2=86(LC 18)  
Max Uplift 7=-198(LC 11), 2=-309(LC 10)  
Max Grav 7=1782(LC 35), 2=2160(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3966/623, 3-4=-2967/547, 4-5=-2742/550, 5-6=-2992/545, 6-7=-4102/645  
BOT CHORD 2-11=-535/3580, 10-11=-535/3580, 9-10=-394/2721, 8-9=-560/3757, 7-8=-560/3757  
WEBS 3-10=-928/149, 4-10=0/410, 4-9=-274/305, 5-9=-18/445, 6-9=-1094/182

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 10-0-0, Exterior(2E) 10-0-0 to 14-4-0, Exterior(2R) 14-4-0 to 19-4-0, Interior(1) 19-4-0 to 24-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=198, 2=309.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



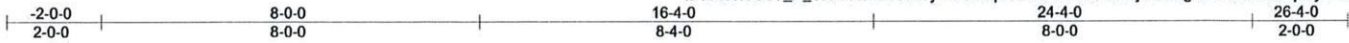
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674237
105781	A4	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:37 2020 Page 1

ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r7-vhpAvzvvBvT1hdVhidj479x5gcdXDvMaOvBpHyB4X4



Scale = 1:46.6

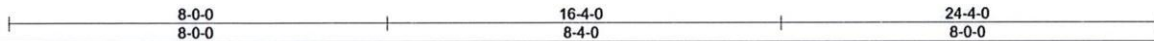
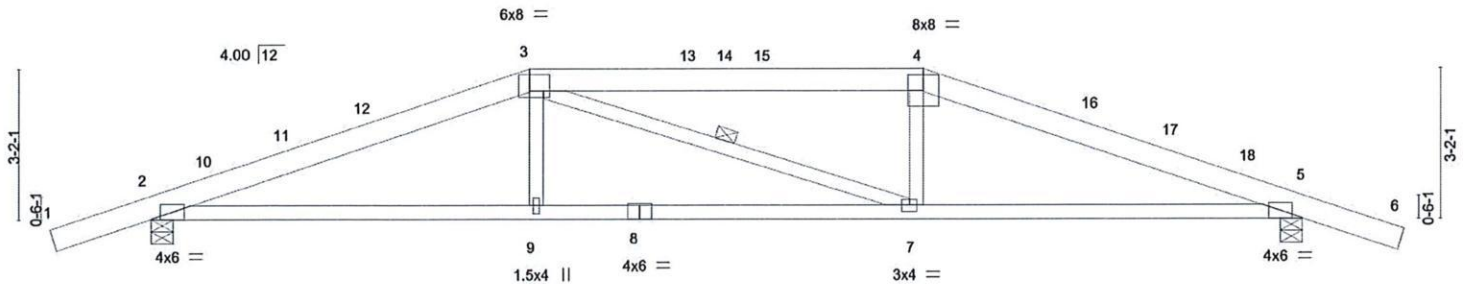


Plate Offsets (X,Y)-- [2:0-2-6,Edge], [3:0-5-4,0-4-4], [5:0-2-6,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.20	7-9	>999	240	MT20	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.33	7-9	>875	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.11	5	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						Weight: 97 lb	FT = 10%
BCDL 10.0										

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
 BOT CHORD 2x4 SPF 1650F 1.5E  
 WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
 3-7: 2x4 SPF 1650F 1.5E

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-7

#### REACTIONS.

(size) 2=0-5-8, 5=0-5-8  
 Max Horz 2=63(LC 18)  
 Max Uplift 2=-319(LC 10), 5=-319(LC 11)  
 Max Grav 2=1932(LC 35), 5=1932(LC 35)

#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-3416/541, 3-4=-3101/557, 4-5=-3422/541  
 BOT CHORD 2-9=-395/3092, 7-9=-391/3101, 5-7=-410/3098  
 WEBS 3-9=0/327, 3-7=-366/374, 4-7=0/327

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 2-0-14 to 1-5-2, Interior(1) 1-5-2 to 8-0-0, Exterior(2R) 8-0-0 to 12-11-6, Interior(1) 12-11-6 to 16-4-0, Exterior(2R) 16-4-0 to 21-3-6, Interior(1) 21-3-6 to 26-4-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=ib) 2=319, 5=319.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
 400 Sunrise Avenue, Suite 270  
 Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674238
105781	A4A	Hip	1	1	Job Reference (optional)	

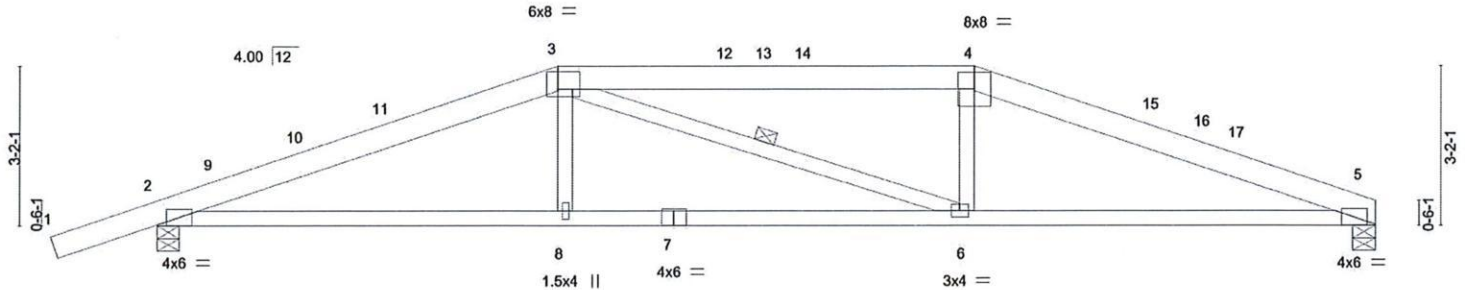
Ballard Truss LLC, Snowflake, AZ - 85937,

8,430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:38 2020 Page 1

ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r7-NINZ7JwXyDbuJn4yEQ8ydI6s4xKGg9Vp2ekMkyB4X3

-2-0-0	8-0-0	16-4-0	24-4-0
2-0-0	8-0-0	8-4-0	8-0-0

Scale = 1:44.1



		8-0-0		16-4-0		24-4-0					
		8-0-0		8-4-0		8-0-0					
Plate Offsets (X,Y)-- [2:0-2-6,Edge], [3:0-5-4,0-4-4], [5:0-2-2,Edge]											
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL 40.0		Plate Grip DOL 1.15		TC 0.81		Vert(LL) -0.21 5-6 >999 240		MT20		185/144	
(Roof Snow=40.0)		Lumber DOL 1.15		BC 0.76		Vert(CT) -0.33 5-6 >863 180					
TCDL 10.0		Rep Stress Incr YES		WB 0.13		Horz(CT) 0.11 5 n/a n/a					
BCLL 0.0 *		Code IRC2018/TPI2014		Matrix-SH				Weight: 93 lb		FT = 10%	
BCDL 10.0											

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
3-6: 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 3-6

**REACTIONS.** (size) 5=0-5-8, 2=0-5-8  
Max Horz 2=73(LC 14)  
Max Uplift 5=-209(LC 11), 2=-321(LC 10)  
Max Grav 5=1570(LC 35), 2=1948(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3429/573, 3-4=-3180/594, 4-5=-3470/586  
BOT CHORD 2-8=-462/3104, 6-8=-457/3113, 5-6=-467/3177  
WEBS 3-8=0/326, 3-6=-342/444, 4-6=0/326

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 8-0-0, Exterior(2R) 8-0-0 to 12-11-6, Interior(1) 12-11-6 to 16-4-0, Exterior(2R) 16-4-0 to 21-3-6, Interior(1) 21-3-6 to 24-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; P=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of trues to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 5=209, 2=321.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



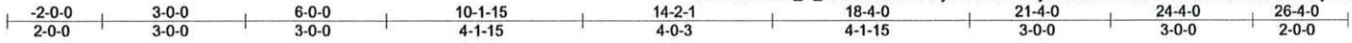
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss A5	Truss Type GIRDER	Qty 1	Ply 2	Yavapai County 2 Bedroom R64674239
---------------	-------------	----------------------	----------	----------	---------------------------------------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:41 2020 Page 1

ID:U?NWOCY\_P\_W3D7wwZ7I1e8yB4r?-nS2hLyPE8zTAFoxWYifErKkaHzkT12xV0iOz3yB4X0



Scale = 1:46.6

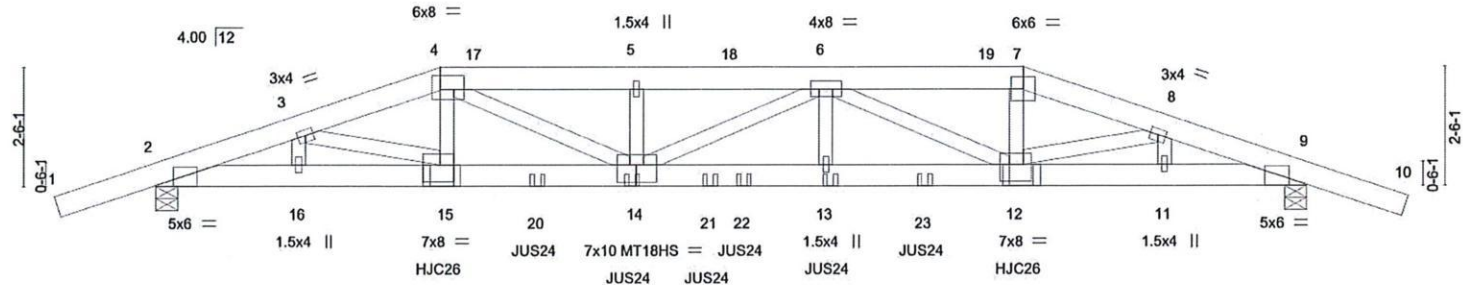


Plate Offsets (X,Y)--	[2:0-4-6,Edge], [4:0-6-0,0-3-8], [9:0-4-6,Edge], [12:0-4-0,0-4-4], [14:0-5-0,0-4-8], [15:0-3-8,0-4-4]
-----------------------	---

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL 1.15	TC 0.33	in (loc) l/defl L/d	MT20 185/144	
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(LL) -0.36 13-14 >791 240	MT18HS 185/144	
BCLL 0.0 *	Rep Stress Incr NO	WB 0.76	Vert(CT) -0.48 13-14 >597 180		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-SH	Horz(CT) 0.10 9 n/a n/a		
				Weight: 262 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-5-8, 9=0-5-8  
Max Horz 2=51(LC 46)  
Max Uplift 2=-653(LC 6), 9=-652(LC 7)  
Max Grav 2=3967(LC 17), 9=3961(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-8923/1210, 3-4=-10219/1447, 4-5=-12975/1838, 5-6=-12974/1838, 6-7=-9871/1410,  
7-8=-10171/1437, 8-9=-8907/1212  
BOT CHORD 2-16=-1105/8248, 15-16=-1105/8248, 14-15=-1328/9805, 13-14=-1759/13012,  
12-13=-1759/13012, 11-12=-1063/8231, 9-11=-1063/8231  
WEBS 3-16=-495/136, 3-15=-227/1612, 4-15=-109/1169, 4-14=-516/3530, 5-14=-506/145,  
6-13=-115/1067, 6-12=-3525/522, 7-12=-324/2612, 8-12=-218/1583, 8-11=-471/129

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=653, 9=652.

Continued on page 2



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674239
105781	A5	GIRDER	1	2	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:41 2020 Page 2  
ID:U?NWOCY\_P\_W3D7wwZ7I1e8yB4r?-nS2hLyPE8zTAFoXwYifErKkaHzkTl2xV0tOz3yB4X0

#### NOTES-

- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 12-3-4 oc max. starting at 6-0-6 from the left end to 18-3-10 to connect truss(es) to front face of bottom chord.
- 15) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 8-0-12 from the left end to 16-3-4 to connect truss(es) to front face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

##### Uniform Loads (plf)

Vert: 1-4=-100, 4-7=-100, 7-10=-100, 2-9=-20

##### Concentrated Loads (lb)

Vert: 15=-945(F) 14=-407(F) 13=-407(F) 12=-945(F) 20=-407(F) 21=-407(F) 22=-407(F) 23=-407(F)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674240
105781	A5A	GIRDER	1	2	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:43 2020 Page 1

ID:U?NWOCy\_P\_W3D7wwZ7I1e8yB4r7-krASA0\_gmlDAPYyv1zk7KGP5L5gbxnEEzKMV1xyB4X\_

-2-0-0	3-0-0	6-0-0	10-1-15	14-2-1	18-4-0	21-4-0	24-4-0
2-0-0	3-0-0	3-0-0	4-1-15	4-0-3	4-1-15	3-0-0	3-0-0

Scale = 1:43.7

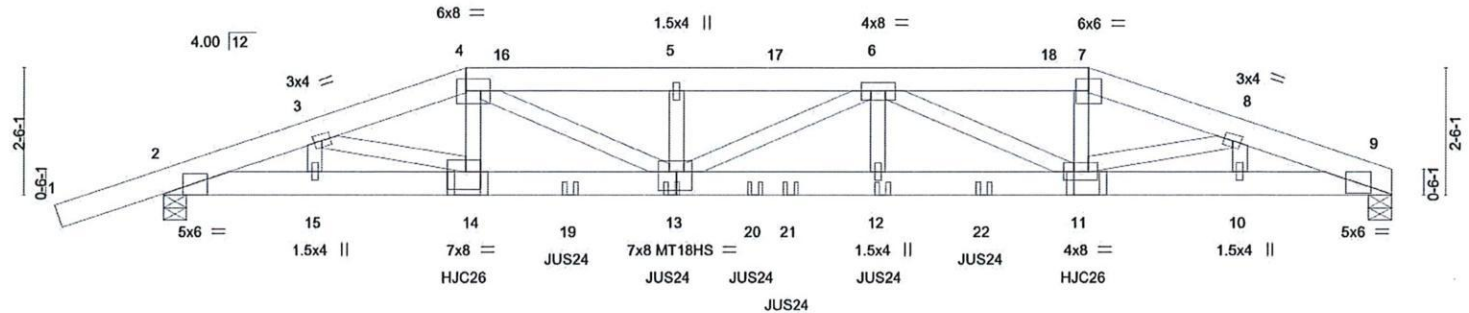


Plate Offsets (X,Y)--	[2:0-4-10,Edge], [4:0-5-12,0-3-0], [13:0-3-12,0-4-8], [14:0-3-8,0-4-4]
-----------------------	--

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSL</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL 2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	185/144
(Roof Snow=40.0)	Lumber DOL 1.15	BC 0.62	Vert(LL) -0.35 12-13 >813 240	MT18HS	185/144
TCDL 10.0	Rep Stress Incr NO	WB 0.72	Vert(CT) -0.46 12-13 >624 180		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-SH	Horz(CT) 0.09 9 n/a n/a		
BCDL 10.0				Weight: 255 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-1-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 9=0-5-8, 2=0-5-8  
Max Horz 2=66(LC 6)  
Max Uplift 9=-607(LC 7), 2=-683(LC 6)  
Max Grav 9=3450(LC 18), 2=3867(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-8669/1287, 3-4=-9918/1539, 4-5=-12504/1990, 5-6=-12503/1990, 6-7=-9136/1652,  
7-8=-9416/1687, 8-9=-8441/1494  
BOT CHORD 2-15=-1192/8012, 14-15=-1192/8012, 13-14=-1431/9518, 12-13=-1992/12343,  
11-12=-1992/12343, 10-11=-1365/7823, 9-10=-1365/7823  
WEBS 3-15=-479/141, 3-14=-245/1558, 4-14=-108/1171, 4-13=-589/3325, 5-13=-508/145,  
6-13=-48/311, 6-12=-148/994, 6-11=-3600/521, 7-11=-389/2386, 8-11=-358/1394,  
8-10=-383/112

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (if=lb)

Continued on Page 2



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom
105781	A5A	GIRDER	1	2	R64674240

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:43 2020 Page 2  
ID:U?NWOCY\_P\_W3D7wwZ7I1e8yB4r?-krASA0\_gmlDAPYyv1zk7KGP5L5gbxnEEzKMV1xyB4X\_

#### NOTES-

- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 12-3-4 oc max. starting at 6-0-6 from the left end to 18-3-10 to connect truss(es) to back face of bottom chord.
- 15) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 8-0-12 from the left end to 16-3-4 to connect truss(es) to back face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

##### Uniform Loads (plf)

Vert: 1-4=-100, 4-7=-100, 7-9=-100, 2-9=-20

##### Concentrated Loads (lb)

Vert: 14=-945(B) 13=-407(B) 12=-360(B) 11=-665(B) 19=-407(B) 20=-407(B) 21=-407(B) 22=-360(B)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see *ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



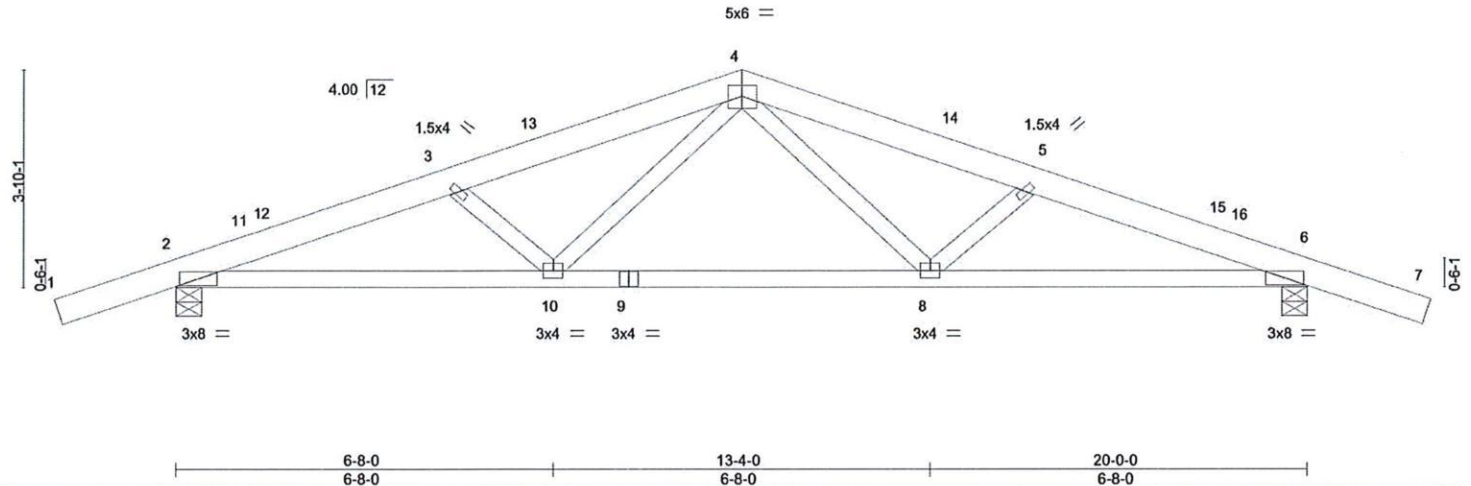
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss B1	Truss Type Common	Qty 5	Ply 1	Yavapai County 2 Bedroom	R64674241
Ballard Truss LLC, Snowflake, AZ - 85937,						Job Reference (optional)

8,430 s Nov 30 2020 MITek Industries, Inc. Tue Dec 8 08:35:44 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ71e8yB4r?-C1kqNM?IX3L11IX5bgFMsUyGYV2HgKWOB\_52YnYB4Wz

-2-0-0	5-0-0	10-0-0	15-0-0	20-0-0	22-0-0
2-0-0	5-0-0	5-0-0	5-0-0	5-0-0	2-0-0

Scale = 1:38.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.15	TC	0.28	in (loc)	l/defl	L/d	MT20	185/144	
(Roof Snow=40.0)		Lumber DOL	1.15	BC	0.47	Vert(LL)	-0.11 8-10	>999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Vert(CT)	-0.19 8-10	>999			
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH		Horz(CT)	0.06 6	n/a			
BCDL	10.0								Weight: 87 lb	FT = 10%	

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-4-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-5-8, 6=0-5-8  
Max Horz 2=75(LC 18)  
Max Uplift 2=-260(LC 10), 6=-260(LC 11)  
Max Grav 2=1521(LC 21), 6=1521(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2795/439, 3-4=-2294/377, 4-5=-2294/376, 5-6=-2795/438  
BOT CHORD 2-10=-324/2525, 8-10=-181/1613, 6-8=-344/2525  
WEBS 4-8=-52/766, 5-8=-626/176, 4-10=-51/766, 3-10=-626/175

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 10-0-0, Exterior(2R) 10-0-0 to 13-6-0, Interior(1) 13-6-0 to 22-0-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (It=lb) 2=260, 6=260.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

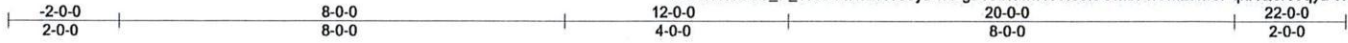
**MITek**  
MITek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss B2	Truss Type Hip	Qty 1	Ply 1	Yavapai County 2 Bedroom	R64674242
---------------	-------------	-------------------	----------	----------	--------------------------	-----------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:45 2020 Page 1

ID:U?NWOCy\_P\_W3D7wwZ711e8yB4r?-gDICbi?wINTufs6l9OmbPhUMzuMePqhXQerc5qyB4WY



Scale = 1:39.6

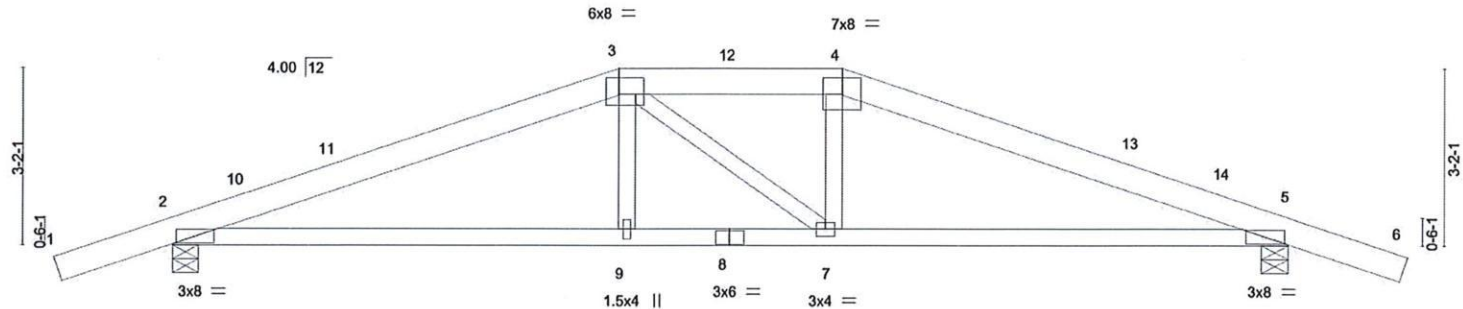


Plate Offsets (X,Y)--	[3:0-5-4,0-3-8]
-----------------------	-----------------

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.59	Vert(LL) -0.14 2-9 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.14	Vert(CT) -0.26 2-9 >912 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.07 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 81 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-3-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-5-8, 5=0-5-8  
Max Horz 2=-63(LC 15)  
Max Uplift 2=-274(LC 10), 5=-274(LC 11)  
Max Grav 2=1793(LC 35), 5=1793(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2524/476, 3-4=-2194/522, 4-5=-2527/499  
BOT CHORD 2-9=-334/2184, 7-9=-331/2191, 5-7=-367/2187  
WEBS 3-7=-314/321, 4-7=-47/293

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-11-6, Interior(1) 16-11-6 to 22-0-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (It=lb) 2=274, 5=274.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED FOR DESIGN CRITERIA ONLY  
December 9, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

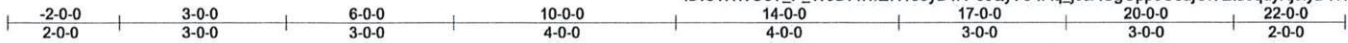
**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss B3	Truss Type GIRDER	Qty 1	Ply 1	Yavapai County 2 Bedroom	R64674243
---------------	-------------	----------------------	----------	----------	--------------------------	-----------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:47 2020 Page 1

ID:U?NWOCy\_P\_W3D7wwZ711e8yB4r7-ccQy?O1Aq\_JcuAGgGpp3U6ajGf?EtdequyKj9iyB4Ww



Scale = 1:39.6

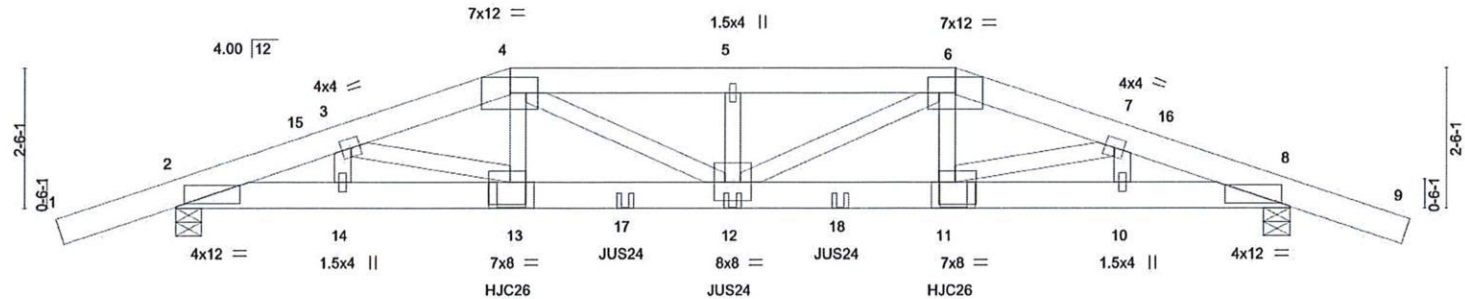


Plate Offsets (X,Y)--	[11:0-3-8,0-4-12], [13:0-3-8,0-4-12]
-----------------------	--------------------------------------

<b>LOADING</b> (psf)	<b>SPACING</b>	<b>CSI</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.51	in (loc) l/defl L/d	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.33 12 >718 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.62	Vert(CT) -0.44 12 >536 180		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-SH	Horz(CT) 0.10 8 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 108 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-9-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-5-8, 8=0-5-8  
Max Horz 2=-51(LC 47)  
Max Uplift 2=-511(LC 6), 8=-511(LC 7)  
Max Grav 2=3137(LC 31), 8=3137(LC 31)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-6768/848, 3-4=-7487/1020, 4-5=-8237/1156, 5-6=-8237/1156, 6-7=-7487/1020, 7-8=-6768/852  
BOT CHORD 2-14=-769/6243, 13-14=-769/6243, 12-13=-921/7179, 11-12=-887/7179, 10-11=-736/6243, 8-10=-736/6243  
WEBS 3-14=-384/117, 3-13=-179/1090, 4-13=-119/1226, 4-12=-221/1451, 5-12=-502/157, 6-12=-221/1451, 6-11=-120/1226, 7-11=-181/1090, 7-10=-384/116

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=511, 8=511.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 7-11-4 oc max. starting at 6-0-6 from the left end to 13-11-10 to connect truss(es) to front face of bottom chord.
  - 12) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 1-11-4 oc max. starting at 8-0-12 from the left end to 11-11-4 to connect truss(es) to front face of bottom chord.
  - 13) Fill all nail holes where hanger is in contact with lumber.

On the CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674243
105781	B3	GIRDER	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:47 2020 Page 2  
ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r?-ccQy?O1Aq\_jcuAGgGpp3U6ajGi?EtdequyKj9lyB4Ww

#### LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-100, 4-6=-100, 6-9=-100, 2-8=-20

Concentrated Loads (lb)

Vert: 13=-945(F) 12=-407(F) 11=-945(F) 17=-407(F) 18=-407(F)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

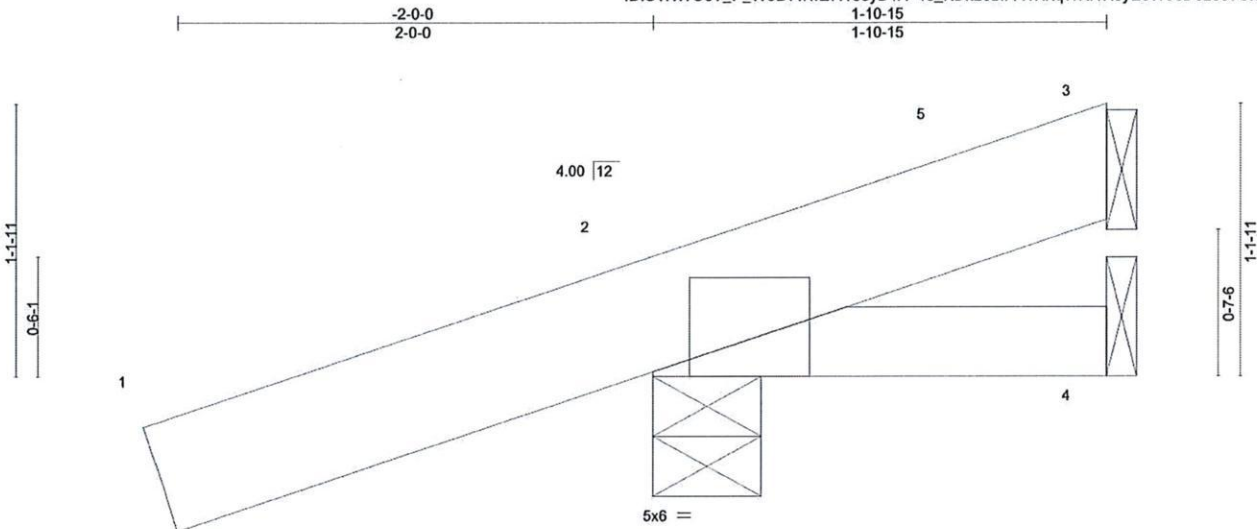


MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss J2	Truss Type Jack-Open	Qty 12	Ply 1	Yavapai County 2 Bedroom R64674244
---------------	-------------	-------------------------	-----------	----------	---------------------------------------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:48 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ7I1e8yB4r7-4o\_KDk2oblrTWKrtqWK11K6yE6W8cDez6c3Gh9yB4Wv



Scale = 1:9.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.00	2	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	2-4	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 10 lb FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
Max Horz 2=66(LC 10)  
Max Uplift 3=-199(LC 20), 2=-168(LC 10)  
Max Grav 3=25(LC 10), 2=636(LC 20), 4=37(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 1-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=199, 2=168.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674245
105781	J4	Jack-Open	10	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MITek Industries, Inc. Tue Dec 8 08:35:48 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ71e8yB4r?4o\_KDk2oblrTWKrtqWK1K6xd6VvcDez6c3Gh9yB4Wv

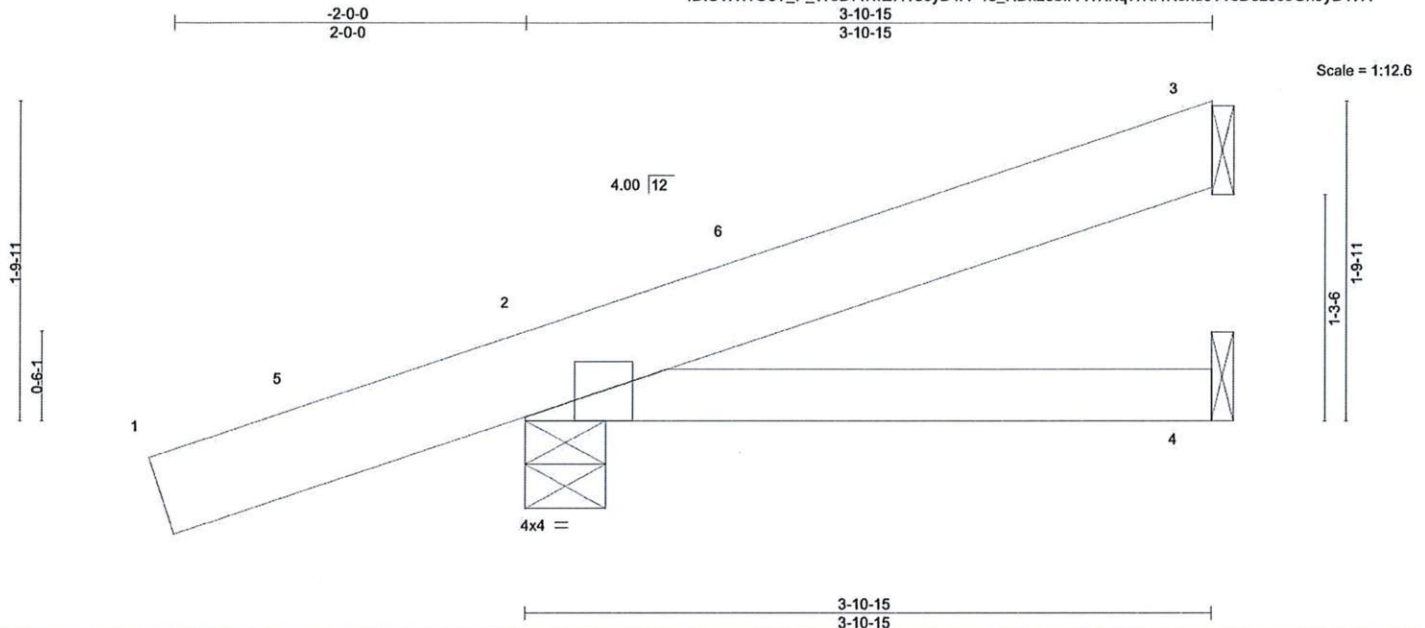


Plate Offsets (X,Y)-- [2:0-3:6,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL)	-0.01	2-4	>999	MT20	197/144
(Roof Snow=40.0)	Lumber DOL 1.15	BC 0.10	Vert(CT)	-0.02	2-4	>999		
TCDL 10.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014	Matrix-P						
BCDL 10.0							Weight: 16 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
Max Horz 2=94(LC 10)  
Max Uplift 3=-96(LC 20), 2=-164(LC 10)  
Max Grav 3=154(LC 21), 2=726(LC 21), 4=72(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=164.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MITek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss J4A	Truss Type Jack-Open	Qty 1	Ply 1	Yavapai County 2 Bedroom	R64674246
---------------	--------------	-------------------------	----------	----------	--------------------------	-----------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:49 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r?-Y?XjQ42QmbzK7TP3OErXZXf6NWS\_Lgu7LGppEbyB4Wu

Job Reference (optional)

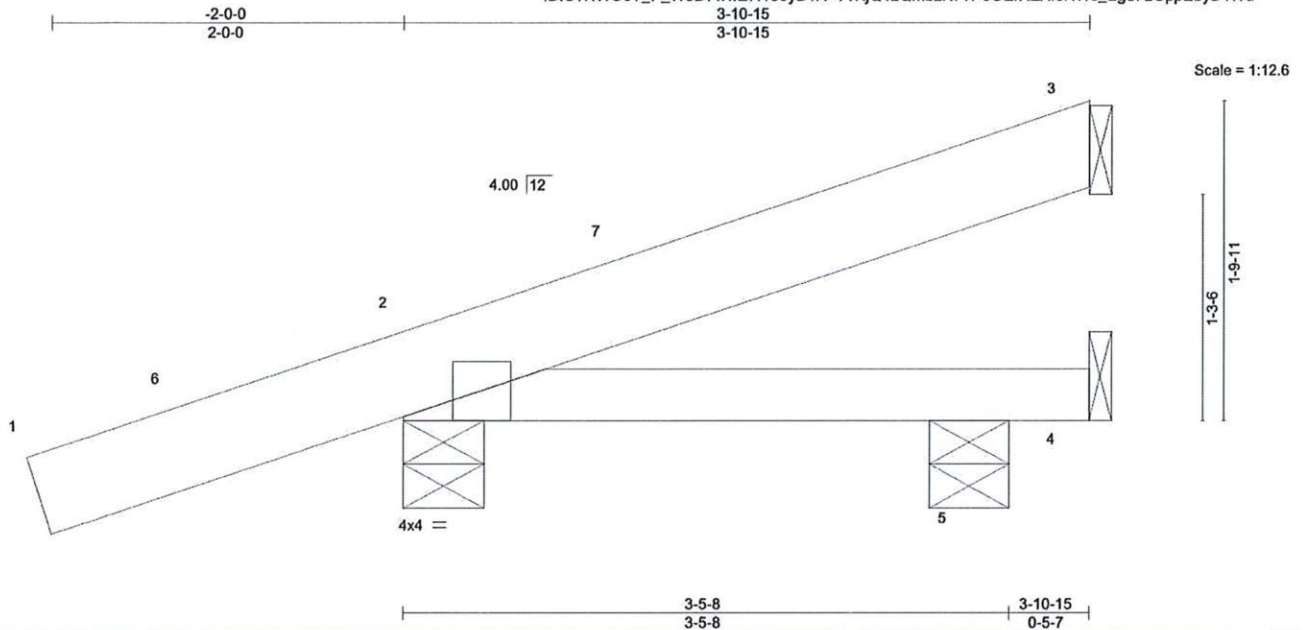


Plate Offsets (X,Y)-- [2:0-3-6,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL 2-0-0	TC 0.28	Vert(LL)	-0.00	2-5	>999	240	MT20
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT)	-0.00	2-5	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P						
							Weight: 16 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-5-8, 4=Mechanical, 5=0-5-8  
Max Horz 2=94(LC 10)  
Max Uplift 3=-96(LC 20), 2=-172(LC 10), 4=-48(LC 5)  
Max Grav 3=154(LC 21), 2=714(LC 21), 5=146(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=172.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



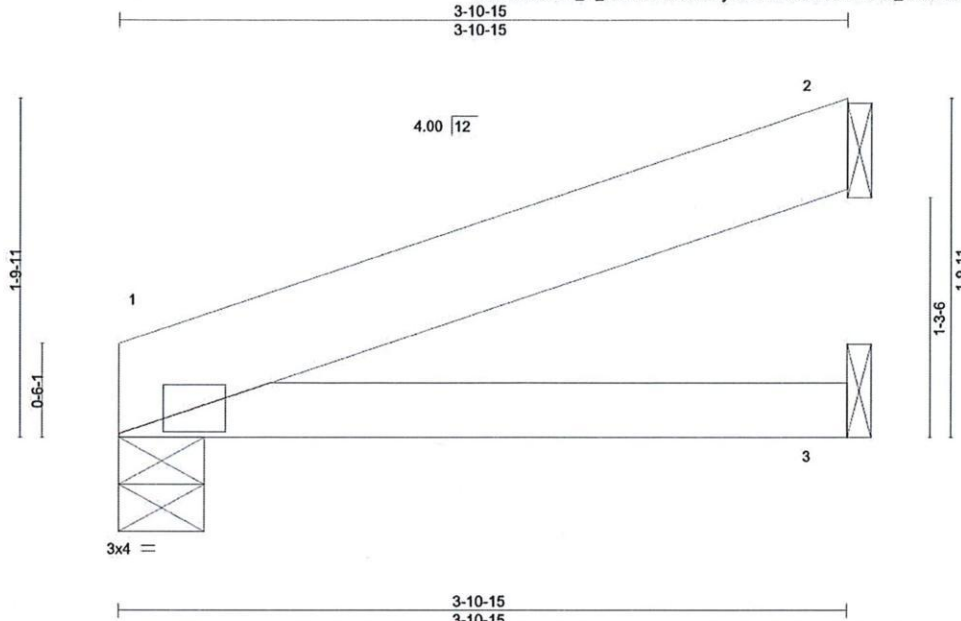
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674247
105781	J4B	Jack-Open	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:50 2020 Page 1

ID:U7NWOCY\_P\_W3D7wwZ711e8yB4r7-0B55eQ337v5Bld\_FxxMm6ICJHvBN478GavYNm1yB4Wt



Scale = 1:11.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.01	1-3	>999	240	MT20	197/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	1-3	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P						Weight: 12 lb	FT = 10%
BCDL 10.0										

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-5-8, 2=Mechanical, 3=Mechanical  
Max Horz 1=61(LC 10)  
Max Uplift 1=-23(LC 10), 2=-68(LC 10)  
Max Grav 1=282(LC 20), 2=246(LC 20), 3=72(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674248
105781	J6	Jack-Closed	18	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:50 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ7I1e8yB4r?-0B55eQ337v5Bld\_FxxMm6lCH1v95478GavYNm1yB4Wt

Scale = 1:17.0

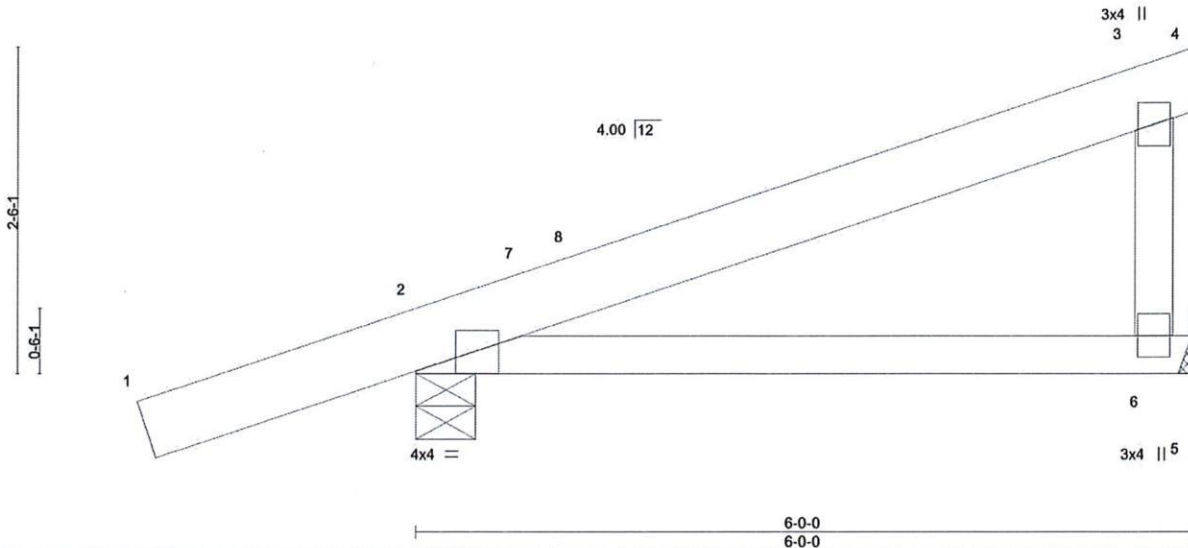


Plate Offsets (X,Y)-- [2:0-3-10,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0		TC 0.28	Vert(LL)	-0.05	2-6	>999	240	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15		BC 0.25	Vert(CT)	-0.10	2-6	>664	180		
TCDL 10.0	Lumber DOL 1.15		WB 0.00	Horz(CT)	0.00	6	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES		Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014								Weight: 24 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 6=Mechanical, 2=0-5-8  
Max Horz 2=113(LC 11)  
Max Uplift 6=53(LC 14), 2=172(LC 10)  
Max Grav 6=427(LC 21), 2=839(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-6=-366/245

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (it=lb) 2=172.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

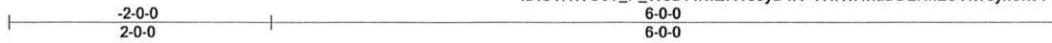


MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674249
105781	J6A	Jack-Closed	3	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:51 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ71e8yB4r?-VNfTrl4huDD2NnZSVft?eykSnJYTpaDQoZlwlTyB4Ws



Scale = 1:16.8

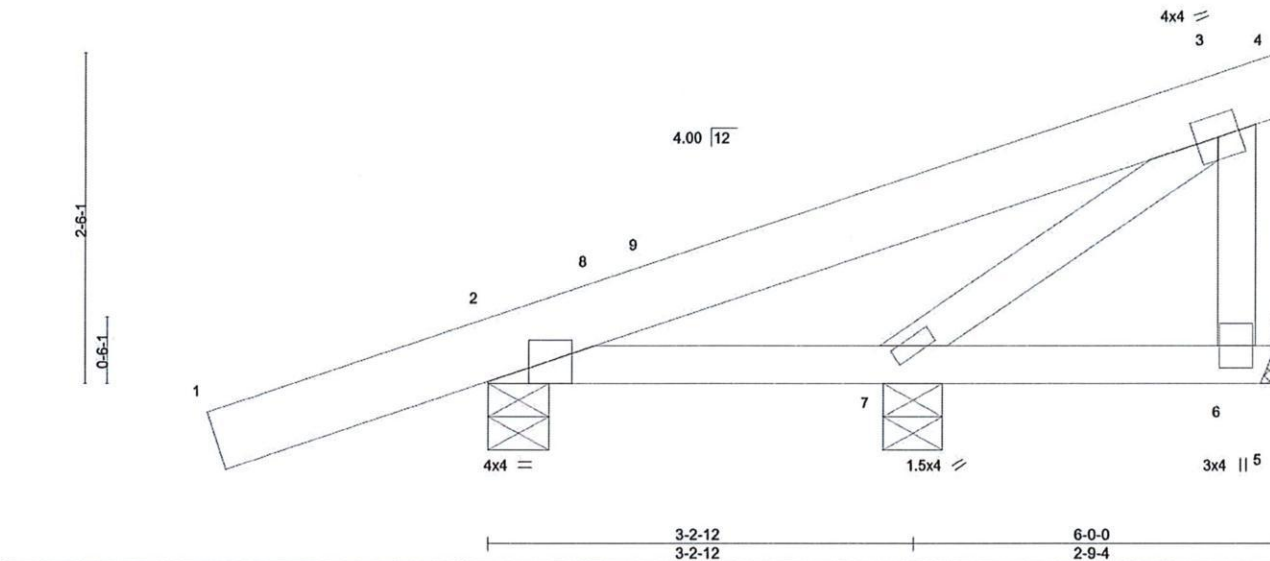


Plate Offsets (X,Y)--		[2:0-3-10,Edge]		3-2-12		6-0-0		2-9-4				
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP		
TCLL	40.0	Plate Grip DOL	2-0-0	TC	0.28	Vert(LL)	-0.00	2-7	>999	240	MT20	185/144
(Roof Snow=40.0)		Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	2-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.00	6	n/a	n/a		
BCLL	0.0 *	Code	IRC2018/TPI2014	Matrix-P							Weight: 29 lb	FT = 10%
BCDL	10.0											

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 6=Mechanical, 2=0-5-8, 7=0-5-8  
Max Horz 2=113(LC 11)  
Max Uplift 6=-76(LC 14), 2=-194(LC 10)  
Max Grav 6=380(LC 21), 2=794(LC 21), 7=139(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-6=-353/250

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (it=lb) 2=194.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



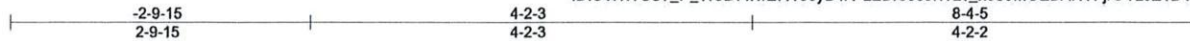
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674250
105781	JC1	MONO GIRDER	5	1		

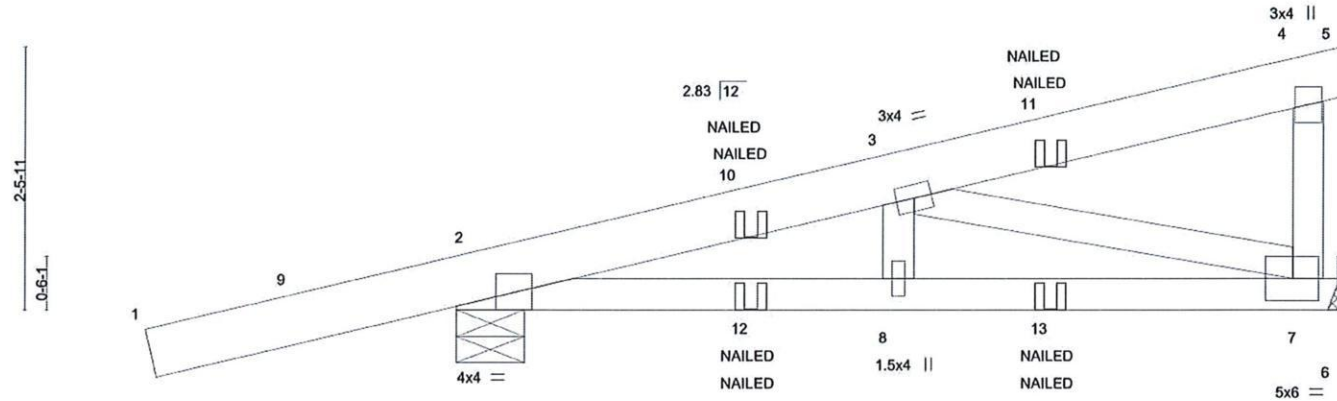
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:52 2020 Page 1

ID:U?NWOcY\_P\_W3D7wwZ711e8yB4r?-zZDr355JWLv\_x8e3MOEBAHYFjrOYzJZ1D1UqwyB4Wr



Scale = 1:20.8



LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.02	8	>999	240	MT20	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	7-8	>999	180		
TCDL 10.0	Rep Stress Incr	NO	WB 0.28	Horz(CT)	0.01	7	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P							
BCDL 10.0									Weight: 39 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 7=Mechanical, 2=0-7-12  
Max Horz 2=106(LC 7)  
Max Uplift 7=47(LC 10), 2=-202(LC 6)  
Max Grav 7=567(LC 17), 2=1014(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-862/253, 4-7=-331/73  
BOT CHORD 2-8=-320/725, 7-8=-320/725  
WEBS 3-7=-754/333

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Refer to girder(s) for truss to truss connections.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (it=lb) 2=202.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-100, 4-5=-100, 2-6=-20



REVIEWED 03/31/2022  
DESIGN CRITERIA ONLY  
December 9, 2020

Continued on page 2

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674250
105781	JC1	MONO GIRDER	5	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:52 2020 Page 2  
ID:U?NWOCY\_P\_W3D7wwZ7I1e8yB4r?-zZDr355JfWLv\_x8e3MOEBAHYFjrOYzJZ1D1UqwyB4Wr

**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 10=68(F=34, B=34) 11=-38(F=-19, B=-19) 13=-16(F=-8, B=-8)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

*ANSI/ITP1 Quality Criteria, DSB-89 and BCSI Building Component*

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



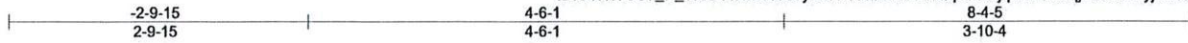
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674251
105781	JC2	MONO GIRDER	1	1	Job Reference (optional)	

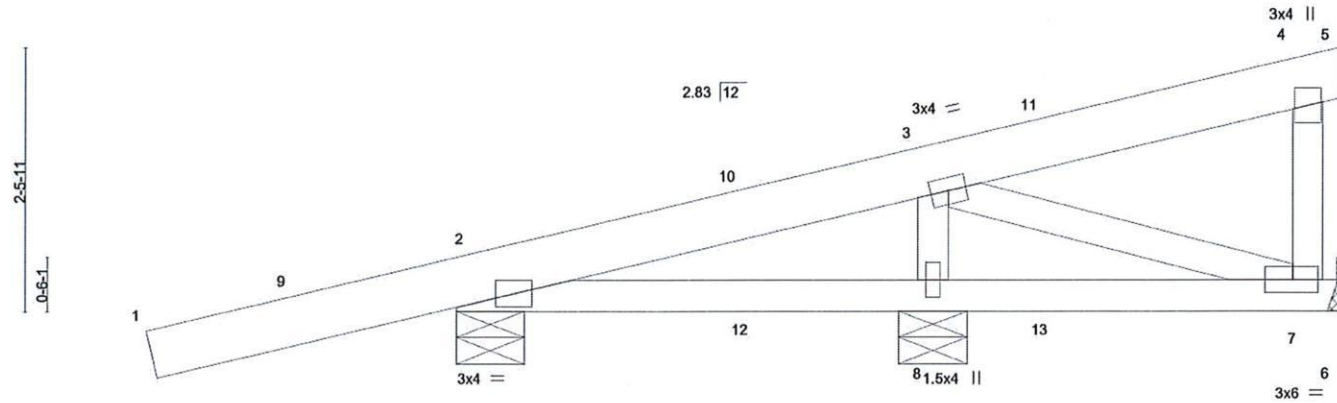
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:53 2020 Page 1

ID:U?NWOCy\_P\_W3D7wwZ71e8yB4r7-RmnDGR6xQqUmc5jqd3wTkNqjE7C5HTyJGtn1NMyB4Wq



Scale = 1:20.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	2-0-0		TC	0.60	in	(loc)	l/defl	L/d	MT20	185/144
(Roof Snow=40.0)		Plate Grip DOL	1.15	BC	0.10	Vert(LL)	-0.01	2-8	>999		
TCDL	10.0	Lumber DOL	1.15	WB	0.12	Vert(CT)	-0.02	2-8	>999		
BCLL	0.0 *	Rep Stress Incr	NO	Matrix-P		Horz(CT)	-0.00	7	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 38 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 7=Mechanical, 2=0-7-12, 8=0-7-12  
Max Horz 2=106(LC 7)  
Max Uplift 7=-73(LC 6), 2=-220(LC 6), 8=-228(LC 16)  
Max Grav 7=334(LC 31), 2=896(LC 16), 8=478(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 4-7=-314/78  
WEBS 3-8=-419/287

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=220, 8=228.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 82 lb down and 231 lb up at 2-9-8, 82 lb down and 231 lb up at 2-9-8, and 184 lb down and 81 lb up at 5-7-7, and 98 lb down and 52 lb up at 5-7-7 on top chord, and 2 lb down at 2-9-8, 2 lb down at 2-9-8, and 19 lb down at 5-7-7, and 52 lb up at 5-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Continued on page 2



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss JC2	Truss Type MONO GIRDER	Qty 1	Ply 1	Yavapai County 2 Bedroom R64674251
---------------	--------------	---------------------------	----------	----------	---------------------------------------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:53 2020 Page 2  
ID:U?NW0cY\_P\_W3D7wwZ7I1e8yB4r?-RmnDGR6xQqUmc5jqd3wTkNqjE7C5HTyGln1NMyB4Wq

**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-4=-100, 4-5=-100, 2-6=-20

Concentrated Loads (lb)

Vert: 10=68(F=34, B=34) 11=-124(F=-19, B=-105) 13=45(F=52, B=-8)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

*ANSI/TPI1 Quality Criteria, DSB-89 and BCS1 Building Component*

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



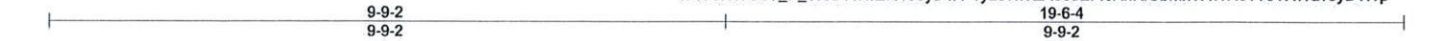
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss V1	Truss Type DROP GABLE	Qty 1	Ply 1	Yavapai County 2 Bedroom	R64674252
---------------	-------------	--------------------------	----------	----------	--------------------------	-----------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:54 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r7-vyLcTn6ZA8cdEF10AnRIGbMxYXWR0vYsVXWavoyB4Wp

Job Reference (optional)



Scale: 3/8"=1'

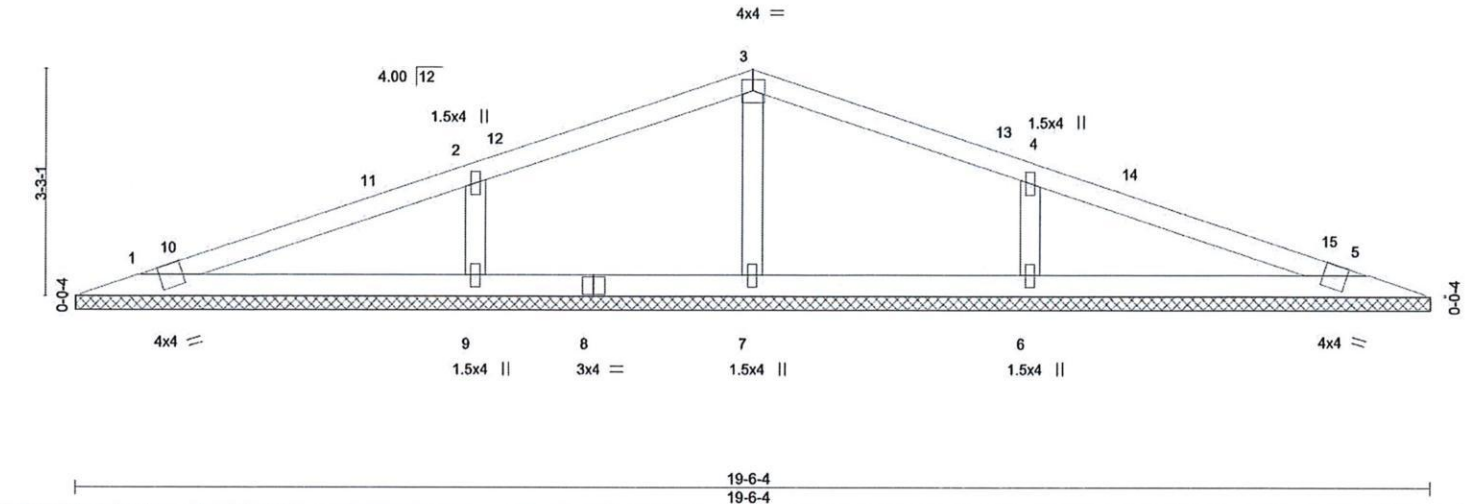


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]							
<b>LOADING (psf)</b>		<b>SPACING-</b>	<b>2-0-0</b>	<b>CSI.</b>		<b>DEFL.</b>	
TCLL 40.0		Plate Grip DOL 1.15		TC 0.44		Vert(LL) n/a	in (loc) l/defl L/d
(Roof Snow=40.0)		Lumber DOL 1.15		BC 0.22		Vert(CT) n/a	n/a 999
TCDL 10.0		Rep Stress Incr YES		WB 0.17		Horz(CT) 0.00	5 n/a n/a
BCLL 0.0 *		Code IRC2018/TPI2014		Matrix-SH			
BCDL 10.0							
						<b>PLATES</b>	<b>GRIP</b>
						MT20	185/144
						Weight: 51 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
OTHERS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 19-6-4.  
(lb) - Max Horz 1=55(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=134(LC 14), 6=134(LC 15)  
Max Grav All reactions 250 lb or less at joint(s) except 1=292(LC 20), 5=292(LC 21), 7=353(LC 1), 9=879(LC 20), 6=880(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-7=-307/69, 2-9=-730/197, 4-6=-730/197

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 4-5-5, Interior(1) 4-5-5 to 9-9-2, Exterior(2R) 9-9-2 to 13-3-2, Interior(1) 13-3-2 to 18-6-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=134, 6=134.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED 03/28/2022  
DESIGN CRITERIA ONLY  
December 9, 2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 2 Bedroom	R64674253
105781	V2	DROP GABLE	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:55 2020 Page 1  
ID:U?NWOCy\_P\_W3D7wwZ711e8yB4r?-N8v\_h77BxRkTrOIdkUyxpov8swuzINO?jBG8RFyB4Wo

15-6-4  
7-9-2

Scale = 1:25.3

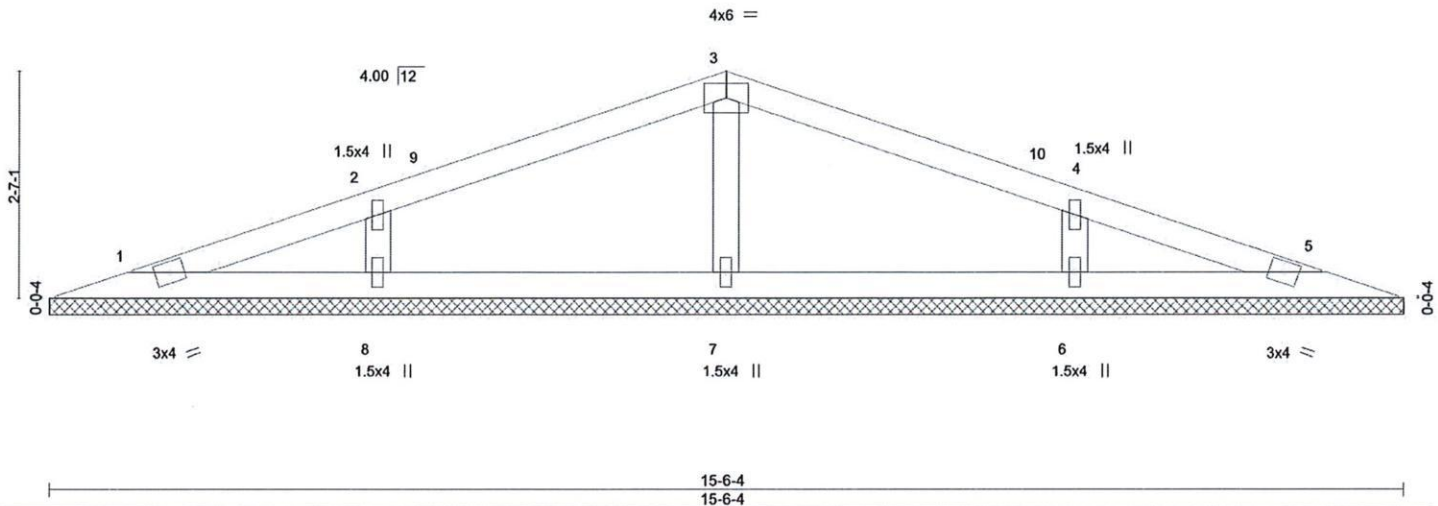


Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.28	Vert(LL)	n/a	-	n/a	999	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
TCDL 10.0	Lumber DOL 1.15	WB 0.13	Horz(CT)	0.00	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH							
BCDL 10.0	Code IRC2018/TPI2014							Weight: 39 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
OTHERS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 15-6-4.  
(lb) - Max Horz 1=-43(LC 15)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 8=-104(LC 14), 6=-104(LC 15)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=435(LC 1), 8=668(LC 20), 6=668(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-7=-355/117, 2-8=-582/198, 4-6=-583/198

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 4-5-5, Interior(1) 4-5-5 to 7-9-2, Exterior(2R) 7-9-2 to 11-3-2, Interior(1) 11-3-2 to 14-6-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7 except (jt=lb) 8=104, 6=104.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss V3	Truss Type DROP GABLE	Qty 1	Ply 1	Yavapai County 2 Bedroom	R64674254
---------------	-------------	--------------------------	----------	----------	--------------------------	-----------

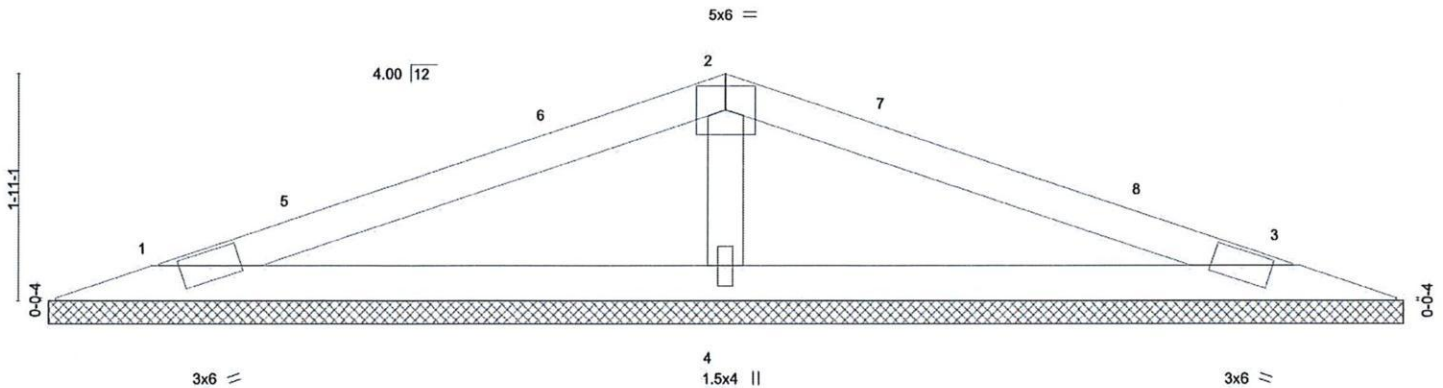
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:55 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ71e8yB4r?-N8v\_h77BxRkTrOtDkUyxpov57wq5lNk?jBG8RFyB4Wo

Job Reference (optional)

11-6-4  
5-9-2

Scale = 1:18.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	2-0-0		TC	0.45	in	(loc)	l/defl	L/d	MT20	185/144
(Roof Snow=40.0)		Plate Grip DOL	1.15	BC	0.32	n/a	-	n/a	999		
TCDL	10.0	Lumber DOL	1.15	WB	0.11	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	Matrix-SH		Horz(CT)	0.00	3	n/a		
BCDL	10.0	Code IRC2018/TPI2014								Weight: 26 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
OTHERS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=11-6-4, 3=11-6-4, 4=11-6-4  
Max Horz 1=30(LC 14)  
Max Uplift 1=45(LC 10), 3=48(LC 15), 4=59(LC 10)  
Max Grav 1=351(LC 20), 3=351(LC 21), 4=661(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-4=-468/252

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 4-5-5, Interior(1) 4-5-5 to 5-9-2, Exterior(2R) 5-9-2 to 9-3-2, Interior(1) 9-3-2 to 10-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

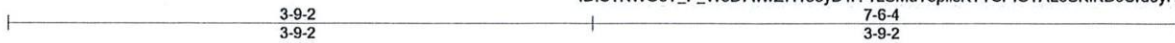


MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job 105781	Truss V4	Truss Type DROP GABLE	Qty 1	Ply 1	Yavapai County 2 Bedroom	R64674255
---------------	-------------	--------------------------	----------	----------	--------------------------	-----------

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:35:56 2020 Page 1  
ID:U?NWOCY\_P\_W3D7wwZ711e8yB4r?-rLSMuT8pilsKTYSPICtAL0SKIKB0Urd9yr?hzhYB4Wn



Scale = 1:14.2

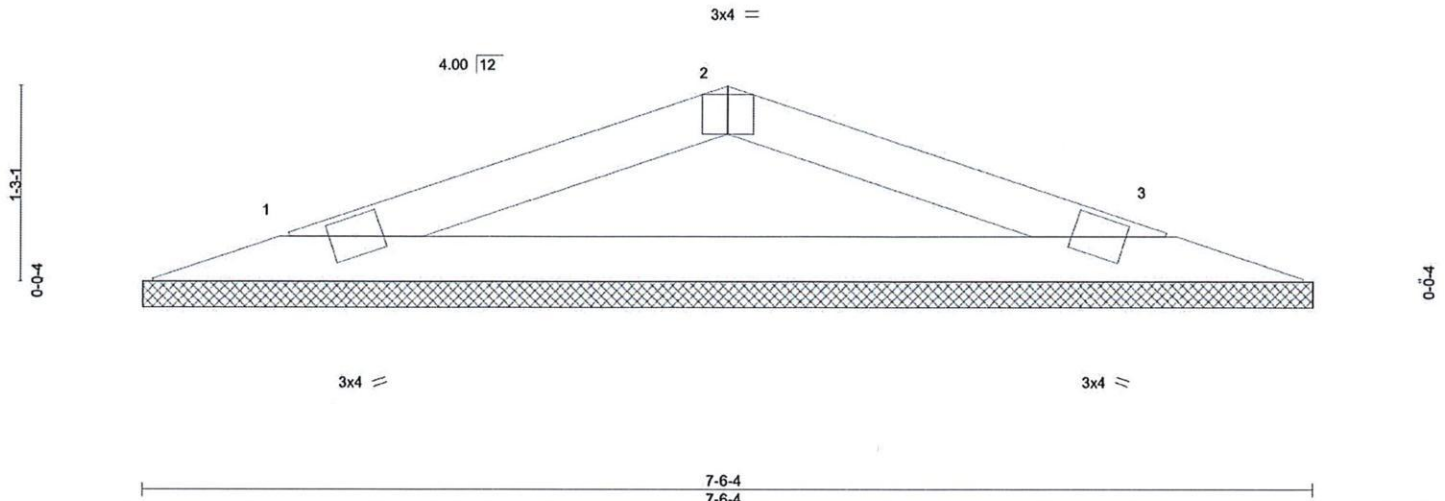


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL 2-0-0		TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.28	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P							
									Weight: 15 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=7-6-4, 3=7-6-4  
Max Horz 1=18(LC 18)  
Max Uplift 1=44(LC 10), 3=44(LC 11)  
Max Grav 1=366(LC 20), 3=366(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-476/356, 2-3=-476/361  
BOT CHORD 1-3=-296/417

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

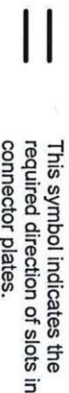
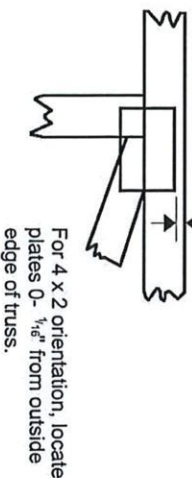
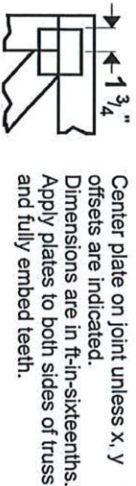
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

# Symbols

## PLATE LOCATION AND ORIENTATION



\* Plate location details available in MiTek 20/20 software or upon request.

## PLATE SIZE

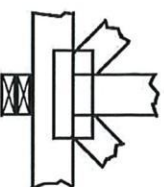
**4 X 4**

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION

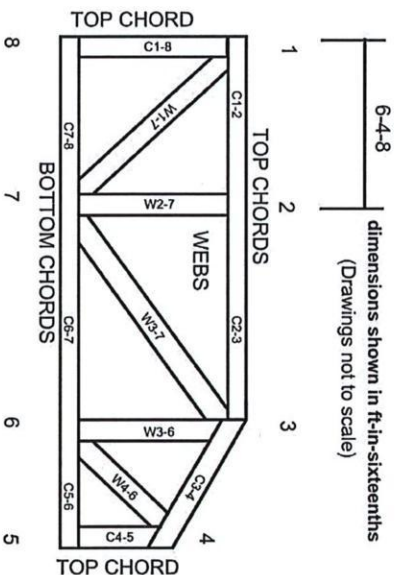


## BEARING



**Industry Standards:**  
ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

## PRODUCT CODE APPROVALS

ICC-ES Reports:  
ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MiTek® All Rights Reserved



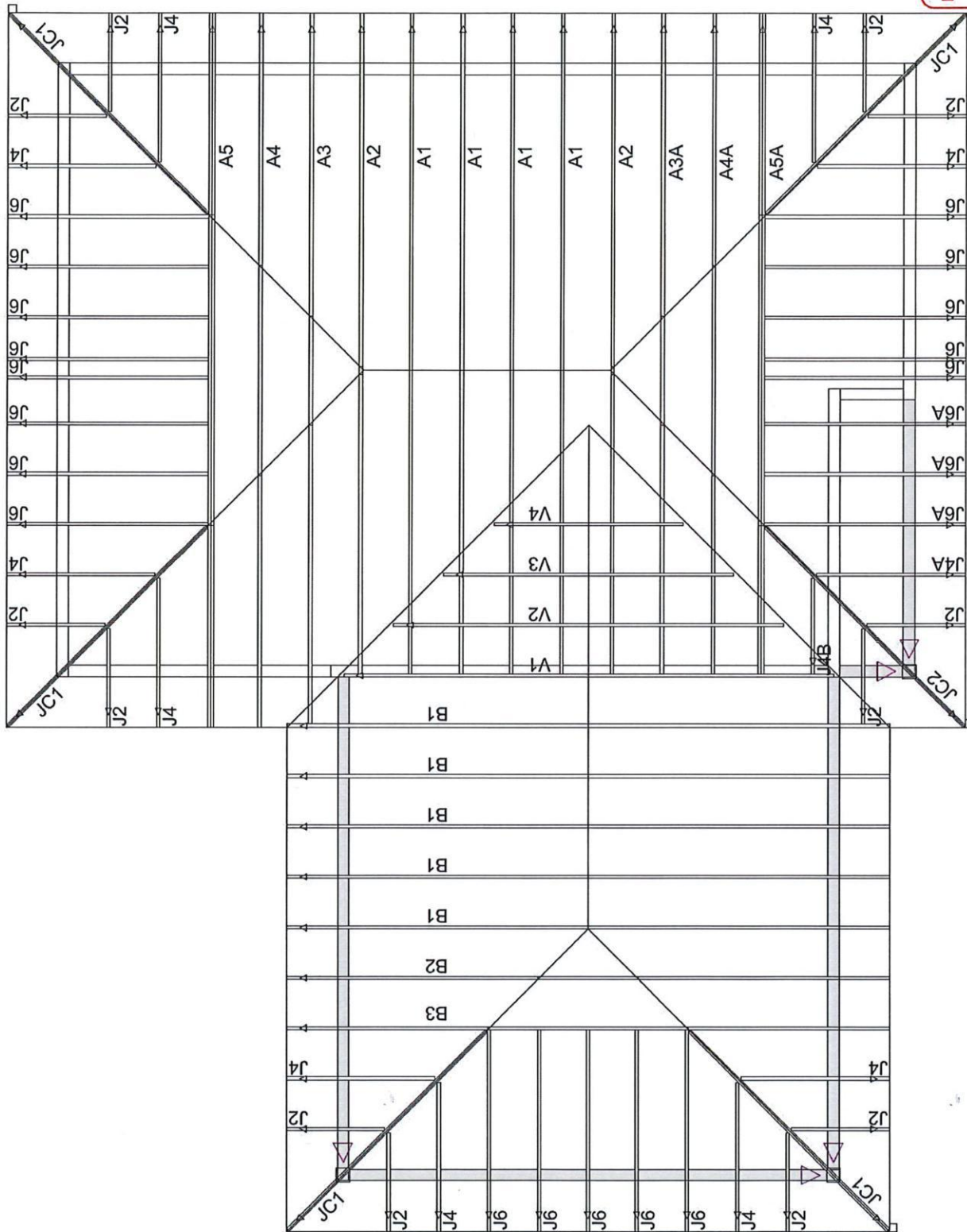
MiTek Engineering Reference Sheet: MIL-7473 rev. 5/19/2020

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. Proper wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor l bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and warps at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

REVIEWED FOR DESIGN CRITERIA ONLY



REVIEWED FOR  
DESIGN CRITERIA  
ONLY

Dashed walls indicate a non-bearing wall

Drawing is not to scale u.n.o.

Indicates left end of truss

Client: Walk In - Mayer

Job Name: Yavapai County

Job #: 105781

Location: , Prescott AZ

**2 bedroom**

By signing below, I agree that I have reviewed this layout and the attached truss drawings and found them to be in conformance to my needs for this project, even if it they have deviated from the plans.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Disclaimer: This Truss Placement Diagram was not created by an engineer, but rather by the Ballard Truss Staff and is purely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the Truss Design Drawings which may be sealed by the Truss Designer.

